OIPE JC10 SEP 26 2003 PATENT & TRADEMARK OFFICE

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AF/1714

PATENT APPLICATION
Mo5494
LeA 32,524

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF	)	
	)	GROUP NO.: 1714
THOMAS ECKEL ET AL	)	
	)	
SERIAL NUMBER: 09/485,288	)	EXAMINER: P. A. SZEKELY
	)	
FILED: FEBRUARY 7, 2000	)	
	)	
TITLE: FLAME RESISTANT ABS POLY-CARBONATE MOULDABLE MATERIALS	)	

LETTER

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed herewith are three copies of an Appeal Brief in the matter of the subject Appeal. An Appeal Brief was previously submitted on June 11, 2002. No fee is due. If there are any insufficiencies of fees, please deduct the fee from Account Number 13-3848.

Respectfully submitted

By _____

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/jme/AP/AP0398

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an enveloped addressed to: Commissioner for Patents, Alexandria, VA 22313-1450 9/24/03
Date

Aron Preis, Reg. No. 29,426
Name of appellant, assignee or Registered Representative

Signature

September 24, 2003
Date

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APPEAL BRIEF

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Brief, submitted in triplicate, is an appeal from the final Office Action dated April 18, 2003, rejecting Claims 1-6, 8-10 and 14-18 under sections 102 and 103 of the statute.

An Advisory Action issued May 19, 2003 indicated the withdrawal of the rejection under section 103; the rejection under 35 U.S.C. 102(e) remains.

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Date

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I. REAL PARTY IN INTEREST

This application was assigned to Bayer Aktiengesellschaft by the named inventors prior to filing in the U.S. Patent and Trademark Office. The real party in interest is therefore Bayer Aktiengesellschaft.

II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of other appeals or interferences that will directly affect, be directly effected by, or have bearing on the present appeal.

III. STATUS OF CLAIMS

Claims 1-6, 8-10 and 14-18, all the claims in the application, are pending but stand rejected; these claims are the subject claims of this appeal.

IV. STATUS OF AMENDMENTS

A response after final rejection, including no amendments, was filed May 12, 2003.

V. SUMMARY OF THE INVENTION

The invention is directed to a multi-component thermoplastic molding composition useful for making articles having improved mechanical properties. At its broadest (Claim 1) the composition includes

(A) poly(ester)carbonate
(B) a graft polymer, such as ABS,
(C) a vinyl copolymer (styrene/acrylonitrile is an example),
(D) a specific mixture of certain phosphorous compounds (a known flame retardant), and
(E) fluorinated polyolefin.

Presently relevant is component "B" of the claimed composition. Component B has a "graft base" in the form of particles having an average size of 0.20 to 0.35 microns.

The invention resides in the finding that the mechanical properties of the composition critically depend on this particle size.

Claim 3 recites 0.25 to 0.30 microns as the corresponding range.

The embodiment entailed in Claim 8 requires the composition to include an additional flame retardant that is different from Component D).

Claim 16 requires the composition to further include a very finely divided compound selected from a specified group.

VI. ISSUES

The only issue in this appeal is whether U.S. Patent 5,672,645 to Eckel et al (herein Eckel) anticipates the claimed composition.

VII. GROUPING OF CLAIMS

Not all the claims stand or fall together. Each of Claims 3, 8 and 16 is, in the present context, patentably independent of the remaining claims.

VIII. ARGUMENTS

Eckel disclosed a molding composition containing components that are substantively similar to the ones presently claimed. Key exception is the graft polymer – Eckel's component C- the "backbone" of which (corresponding the present "graft base") has a preferred particle size (d_{50}) in the range of 0.1 to 0.6 microns.

In rejecting the claims the Examiner contends that "one common point in a range results in anticipation".

Appellants respectfully disagree.

It will be noted that the relevant section of the Manual of Patent Examining Procedure (MPEP 2131.02) states that "A genus does not always anticipate a claim to a species within the genus". This statement clearly militates against the Examiner's contention relative to the anticipatory effect of common points.

Among the exceptions the MPEP notes the instance where the species is "clearly named" and instances of overlap.

In the present case the Eckel document disclosed 0.1 to 0.6 microns, a broad range of fifty tenths of microns (Units). This disclosure does not "clearly name" the range recited in Claim 1, namely 0.20 to 0.35 microns.

In the instances that the prior art discloses a range that overlaps the claimed range, yet includes no specific examples falling within the claimed range, Section 2131.03 of the MPEP, requires a case by case determination. Accordingly, for the reference to anticipate it must disclose the subject matter "with sufficient specificity". "Sufficient specificity" considers whether "the claims are directed to a narrow range, the reference teaches a broad range, and there is evidence of unexpected results within the claimed narrow range". Depending on other facts of the case the Manual states that "it may be reasonable to conclude that the narrow range is not disclosed with sufficient specificity to constitute an anticipation of the claims."

In the present case the Eckel document disclosed 0.1 to 0.6 microns, a broad range of fifty tenths of microns (Units). This disclosure does not name the claimed range that extends over 15 Units in Claim 1. Evidence of unexpected results within the claimed narrow range has been presented in the course of prosecution (Eckel Declaration).

In the absence of "other facts of the case," Appellants respectfully submit that the above serve to demonstrate that Eckel falls short of the requisite "sufficient specificity" and respectfully urge that the rejection of Claims 1, 2, 4, 5 , 6, 9, 10, 14, 15, 17 and 18 as anticipated by Eckel be reconsidered and withdrawn.

Eckel is less "sufficiently specific" relative to Claim 3 where the recited range is still narrower.

Since there is nothing in Eckel to describe the required added flame retardant, the rejection of Claim 8 as anticipated thereby is erroneous.

Similarly erroneous is the rejection of Claim 16 as anticipated by Eckel. There is nothing in Eckel respecting the finely divided compound required to be included in the composition.

Conclusion

Appellants submit that the rejections of the several claims are in error and respectfully request that they be reversed and that Claims 1-6, 8-10 and 14-18 be allowed.

Respectfully submitted,

By 

Aron Preis
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APPENDIX: CLAIMS ON APPEAL

1. Thermoplastic, flame-retardant moulding compositions, containing

A. 40 to 99 parts by weight of a thermoplastic polycarbonate or polyester carbonate,

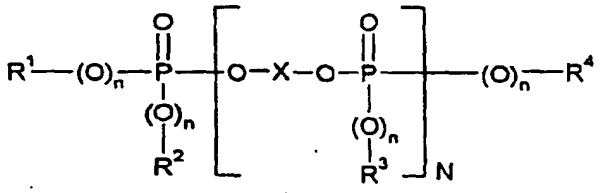
B. 0.5 to 60 parts by weight of a graft polymer of

B.1 5 to 95 % by weight of one or more vinyl monomers on

B.2 95 to 5 by weight of one or more graft bases with glass transition temperatures < 0°C and an average particle size (d_{50} value) of 0.20 to 0.35 µm,

C. 0 to 45 parts by weight of a thermoplastic vinyl copolymer

D. 0.5 to 20 parts by weight of a mixture of at least one mono- and at least one oligo-phosphorus compound of general formula (I)



(I)

wherein

R^1, R^2, R^3 and R^4, independently of each other, each denote a C_1 to C_8 alkyl which is optionally halogenated, a C_5 to C_6 cycloalkyl, C_6 to C_{20} aryl or C_7 to C_{20} aralkyl, which are each optionally substituted by an alkyl, and/or by a halogen,

n denotes 0 or 1, which are independent of each other,

N denotes 0 to 30, and

X denotes a mono- or polynuclear aromatic radical containing 6 to 30 C atoms, and

E. denotes 0.05 to 5 parts by weight of a fluorinated polyolefine.

2. Moulding compositions according to Claim 1, which contain 40 parts by weight of component B and 0 to 30 parts by weight of component C.

3. Moulding compositions according to Claim 1, wherein the average particle size d_{50} of component B is 0.25 to 0.30 µm.

4. Moulding compositions according to Claim 1, wherein the ratio by weight of components B:C is between 2:1 and 1:4.

5. Moulding compositions according to Claim 1, which contain 10 to 90 % by weight of at least one monophosphate compound of formula (I) and 90 to 10 % by weight (with respect to the total amount of phosphorus compounds in each case) of at least one oligophosphorus compound of formula (I).

6. Moulding compositions according to Claim 1, wherein N in formula (I) has an average value of 0.3 to 2.0.

8. Moulding compositions according to Claim 1, which contain up to 35 % by weight, with respect to the total moulding composition, of at least one flame retardant which is different from component D.

9. Moulding compositions according to Claim 1, which contain 1 to 18 parts by weight of component D.

10. Moulding compositions according to Claim 1, wherein graft base B.2 is a diene rubber, an acrylate rubber, a silicone rubber or an ethylene-propylene diene rubber.

14. Mouldings produced from moulding compositions according to Claim 1.

15. The molding composition according to Claim 1 wherein monophosphorus compound of formula (I) is at least one member selected from the group consisting of tributyl phosphate, tris-(2-chloroethyl) phosphate, tris-(2,3-dibromopropyl) phosphate, triphenyl phosphate, tricresyl phosphate, diphenyl cresyl phosphate, diphenyl octyl phosphate, diphenyl-2-ethyl-cresyl phosphate, tri-(isopropylphenyl) phosphate, halogen-substituted aryl phosphates, methylphosphonic acid dimethyl ester, methylphosphonic acid diphenyl ester, phenylphosphonic acid diethyl ester, triphenylphosphine oxide and tricresylphosphine oxide.

16. The molding composition according to Claim 1 further containing a very finely divided compound having average particle diameter of less than or equal to 200 nm comprising an element from main groups 1 to 5 or from subgroups 1 to 8 of the periodic table of the elements, in combination with at least one element selected from the group consisting of oxygen, sulphur, boron, carbon, phosphorus, nitrogen, hydrogen and silicon.

17. The molding composition according to Claim 1 which further contains at least one additive selected from the group consisting of stabilizers, pigments, demoulding agents, flow enhancers and anti-static agents.

18. The molding composition of Claim 1 wherein said C is present in an amount of 2 to 25 part by weight.